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<u>In the Claims</u>

Please replace the claims as follows:

1.   (Currently Amended)   In a communications system utilizing a
digital cross-connect system (DCS) element management system (EMS) for
managing DCS network elements and a SONET EMS for managing SONET
add/drop multiplexer (ADM) network elements, apparatus comprising:

      a <u>non-homogeneous</u> SONET ring network including a plurality of
ADMs, said SONET ring network being managed by said SONET EMS;

      a plurality of DCS elements, each of said plurality of DCS elements
being managed by said DCS EMS, at least one of said plurality of DCS
elements including an ADM <u>of said plurality of ADMs</u> that is logically coupled
to said <u>non-homogeneous</u> SONET <u>ring</u> network and managed by said
SONET EMS, said ADM being <u>virtually</u> coupled to said at least one DCS by a
digital link, <u>such that said non-homogeneous SONET ring network including</u>
<u>said plurality of ADMs is managed by said SONET EMS, so that the</u>
<u>respective DCS and SONET EMSs manage the hybrid ring structure in a</u>
<u>manner that avoids logically decomposing the SONET network elements of</u>
<u>the non-homogeneous SONET ring network into one or more SONET arcs</u>.

2.   (Original)   The apparatus of claim 1, wherein said DCS EMS and
said SONET EMS are coupled to respective DCS and SONET network
elements by a data communication network (DCN).

3.   (Currently Amended)   The apparatus of claim 1, wherein said
<u>virtual</u> digital link comprises one of an STS-1 and STS-3 digital link.

4.   (Currently Amended)   Apparatus comprising:

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a hybrid digital cross-connect system (DCS), said hybrid DCS comprising at least one add-drop multiplexer (ADM) communicating with a DCS port via a _virtual_ digital link;

a SONET ring network comprising a plurality of ADMs including said at least one ADM within said hybrid DCS, wherein said virtual digital link decouples said at least one ADM from DCS elements of said hybrid DCS;

said SONET ring network, including said at least one ADM of said hybrid DCS, being managed as a ring by a SONET element management system (EMS); ~~and~~

said DCS being managed by a DCS EMS, so that the respective DCS and SONET EMSs manage the hybrid ring structure in a manner that avoids logically decomposing the SONET network elements of the non-homogeneous SONET ring network into one or more SONET arcs.

5.   (Currently Amended)   The apparatus of claim 4, wherein said _virtual_ digital link comprises one of an STS-1 and STS-3 digital link.

6.   (Currently Amended)   A hybrid digital cross-connect system (DCS)/SONET integrated SONET ring structure, comprising:

a plurality of add-drop multiplexers (ADMs) arranged according to a ring topology and managed as a ring by a SONET element management system (EMS), wherein at least one of said ADMs forming said SONET ring is included within an input/output module of a hybrid DCS, said input/output module further comprising a DCS port operatively coupled to said ADM via a virtual digital link, so that the respective DCS and SONET EMSs manage the hybrid ring structure in a manner that avoids logically decomposing the ADMs in the ring topology into one or more SONET arcs.

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7.   (Currently Amended)   The apparatus of claim 6, wherein said
<u>virtual</u> digital link comprises one of an STS-1 and STS-3 digital link.

8.   (Currently Amended)   Apparatus, comprising:
       a SONET element management system (EMS), said SONET EMS
being adapted to manage, as a network ring structure, a SONET ring formed
using at least one add-drop multiplexer (ADM) included within a hybrid digital
cross-connect system (DCS)<u>,so that the SONET EMS manages the ring
structure in a manner that avoids logically decomposing the SONET network
elements of the ring structure into one or more SONET arcs</u>.

9.   (Currently Amended)   The apparatus of claim 8, wherein said
ADM included within said hybrid DCS is decoupled from DCS equipment
within said hybrid DCS by a <u>virtual</u> digital link.

10.   (Currently Amended)   The apparatus of claim 9, wherein said
<u>virtual</u> digital link comprises one of an STS-1 and STS-3 digital link.

11.   (Currently Amended)   In a communications system comprising a
digital cross-connect system (DCS) including a SONET add/drop multiplexer
(ADM), a method of utilizing said ADM as a network element within a SONET
ring such that said SONET ring may be managed as a homogeneous SONET
ring structure by a SONET element management system, said method
comprising the steps of:
       characterizing said DCS including said ADM as comprising a logical
DCS network element and a logical ADM network element, said logical DCS
network element communicating with said logical ADM network element via a
<u>virtual</u> digital link; and

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utilizing said logical ADM network element within said SONET ring <u>as a</u>
<u>network element</u> being managed as <u>part of</u> said homogeneous SONET ring
structure by said SONET element management system <u>in a manner that</u>
<u>avoids logically decomposing the SONET network elements of the ring</u>
<u>structure into one or more SONET arcs.</u>

12.   (Currently Amended)   The method of claim 11, wherein said
<u>virtual</u> digital link comprises one of an STS-1 and STS-3 digital link.

13.   (Currently Amended)   A method for adapting a communications
network comprising the steps of:
identifying each network element within a network to be managed;
determining if hybrid DCS/SONET network structures are present in
the network, each said hybrid DCS/SONET network structures comprising a
DCS element having an <u>add-drop multiplexer</u> (ADM) that is logically coupled
to a SONET network;
decoupling, from said determined DCS/SONET network structures,
those <u>ADMs</u> add-drop multiplexers (ADMs) used to form hybrid ring networks;
and
managing said hybrid ring networks as network ring structures using a
SONET element management system (EMS),
<u>so that the SONET EMS manages the hybrid ring networks in a</u>
<u>manner that avoids logically decomposing the SONET network elements of</u>
<u>the hybrid ring networks into one or more SONET arcs.</u>

14.   (Original)   The method of claim 13, further comprising the step of:
inserting an additional ADM between a hybrid DCS/SONET structure
and a hybrid ring utilizing an ADM network element within said hybrid

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DCS/SONET structure.

15. (Currently Amended) The method of claim 13, wherein said DCS network elements and ADM network elements are decoupled via a <u>virtual</u> digital link.

16. (Currently Amended) The method of claim 15 wherein said <u>virtual</u> digital link comprises one of an STS-1 and STS-3 digital link.

17. (Currently Amended) A method for adapting a communications network comprising the steps of:

identifying each network element within a network to be managed;

identifying homogeneous network structures within the network to be managed;

identifying non-homogeneous network structures within the network to be managed;

determining if hybrid DCS/SONET network structures are present in the network to be managed, each said hybrid DCS/SONET network structures comprising a DCS element and having an <u>add-drop multiplexer (ADM)</u> that is logically coupled to a SONET network;

decoupling, from said determined DCS/SONET network structures, those <u>ADMs</u> add-drop multiplexers (ADMs) used to form hybrid ring networks;

managing, using a DCS element manager, DCS network elements within said network to be managed; and

managing, using a SONET element manager, ADMs within said network to be managed, wherein ADMs forming ring structures being managed as homogeneous network ring structures;

<u>so that the respective DCS and SONET element managers manage</u>

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the hybrid ring networks in a manner that avoids logically decomposing the
ADMs of the hybrid ring networks into one or more SONET arcs.

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